

INTERNATIONAL SEARCH REPORT

PCT/GB2004/004176

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 B28C5/12 B28C5/46 B28C7/16 B01F15/02 B01F13/04
 B65D88/04 F16J12/00 F16J13/24

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 B28C B01F B65D F16J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/010792 A1 (JOHNSON KENNETH A ET AL) 16 January 2003 (2003-01-16)	1,4,8-11
Y	paragraph [0002]	12
A	paragraph [0037] - paragraph [0044] paragraph [0058] - paragraph [0060] figures 3,6,8,10,11A,11B,12	2,3,5-7
Y	US 6 354 726 B2 (FOERSTER WERNER) 12 March 2002 (2002-03-12)	12
A	column 1, paragraph 7 - paragraph 9 column 8, line 48 - column 9, line 18 claim 1 figure 1	1-11

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

19 January 2005

Date of mailing of the international search report

22 04 2005

Name and mailing address of the ISA
 European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Real Cabrera, R

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2004/004176

Box II Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-12

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-12

Mixing apparatus with single pneumatic source to charge and discharge the vessel

2. claims: 13-15

Spherical mixing vessel

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 908 240 A (HOOD MAX GEORGE) 1 June 1999 (1999-06-01) column 1, line 4 - line 6 column 2, line 1 - line 17 column 2, line 65 - column 3, line 6; figures 1,2 -----	1-12

INTERNATIONAL SEARCH REPORT

Information on patent family members

PCT/GB2004/004176

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003010792 A1	16-01-2003	US 2002017534 A1	14-02-2002
		US 2001023875 A1	27-09-2001
		US 2001002026 A1	31-05-2001
		US 6098843 A	08-08-2000
		AU 2003234514 A1	17-11-2003
		EP 1509455 A1	02-03-2005
		WO 03093118 A1	13-11-2003
		US 2003192920 A1	16-10-2003
		US 2004155057 A1	12-08-2004
		AT 252516 T	15-11-2003
		DE 69912323 D1	27-11-2003
		DE 69912323 T2	29-07-2004
		EP 1375414 A2	02-01-2004
		EP 1171376 A1	16-01-2002
		JP 2002533275 T	08-10-2002
		WO 0039021 A1	06-07-2000
US 6354726 B2	11-10-2001	DE 10033663 A1	02-08-2001
		EP 1120216 A2	01-08-2001
		US 2001028600 A1	11-10-2001
US 5908240 A	01-06-1999	AU 681040 B2	14-08-1997
		AU 2780795 A	25-01-1996
		WO 9600640 A1	11-01-1996
		GB 2303562 A ,B	26-02-1997
		HK 1001492 A1	19-06-1998